ELSEVIER

Journal of Magnetism and Magnetic Materials 133 (1994) 651–659

journal of magnetism and magnetic materials

Author index to volume 133 (1994)

Abbruzzese, G. and A. Campopiano, A general theory of secondary recrystallization in grain oriented Fe–Si: Metallurgical parameters controlling the microstructural evolution 123
Abe, H., see H. Fukunaga 516
Abe, M., see T. Yamaji 187
Abe, T., see H. Inaba 487
Ahlers, H., Precision calibration procedure for magnetic loss testers using a digital two-channel function generator 437
Allia, P., M. Baricco, M. Knobel, P. Tiberto, F. Vinai, Soft nanocrystalline ferromagnetic alloys with improved ductility obtained through dc Joule heating of amorphous ribbons 243
Allia, P., see E. Bonetti 357
Altoé, M.V.P., M.S. Lancarotte, R. Cohen, M. Emura, F.P. Missell, Magnetic properties of rapidly quenched iron-based alloys 317
Amar, M., R. Kaczmarek, F. Protat, Prediction of power losses in silicon iron sheets under PWM voltage supply 140
Ames, S.L. and J.G. Benford, Goss grains originating from mid-thickness in single-staged high-permeability electrical steel 190
Ansaldi, E., see C. Malvicino 42
Appino, C. and F. Fiorillo, Reversible magnetization processes in amorphous alloys 107
Arai, K.I., Y.H. Kim, M. Yamaguchi, K. Ishiyama, Eddy current losses and number of domain walls with respect to total number of layers for very thin 3% Si–Fe strip-wound cores 198
Arai, K.I. and K. Ishiyama, Recent developments of new soft magnetic materials 233
Aroca, C., see M. Rodríguez 36
Aroca, C., see E. López 74
Arri, A., see C. Malvicino 42
Astie, B., M. Fagot, C. Beraud, J. Degauque, E. Ferrara, A. Stantero, Observations by Lorentz microscopy of movements of magnetic domain walls in amorphous $Fe_{78}B_{13}Si_9$ alloys 77
Atallah, K. and D. Howe, The calculation of iron losses in brushless permanent magnet dc motors 578
Audisio, S., see S. Crottier-Combe 205
Babu, P.D., see L.F. Barquín 82
Baholo, B., P.H. Mellor, D. Howe, T.S. Birch, An automated calorimetric method of loss measurement in electrical machines 433
Bakos, É., see L.K. Varga 280
Barandiarán, J.M., A. García-Arribas, J. Gutiérrez, Magnetic anisotropy distribution in transverse and obliquely field annealed amorphous ribbons 46
Barandiarán, J.M., see M. El Ghannami 314
Barariu, F., see H. Chiriac 325
Baricco, M., see P. Allia 243
Baricco, M., see E. Bonetti 357
Baricco, M., see E. Ferrara 366
Barquín, L.F., J.C.G. Sal, P.D. Babu, S.N. Kaul, Electrical resistivity of Fe–Zr glasses from 4.2 to 1100 K 82
Basak, A., C.H. Yu, G. Lloyd, Core loss computation of a 1000 kVA distribution transformer 564
Basak, A., A. Matsumura, J. Kaczmarek, G. Lloyd, Computation of flux and force in an $SmCo_5$ dc linear motor with U-spring supports 583
Basak, A. and A.F.F. Filho, The design and analysis of a novel brushless dc linear motor 640
Basso, V., M. Lo Bue, A. Magni, G. Ummarino, G. Bertotti, Experimental study and theoretical interpretation of hysteresis loops and Henkel plots in soft magnetic materials 111
Battistini, L., R. Benasciutti, A. Tassi, Effects of heat treatment on crystallographic and magnetic properties of magnetic steels 603
Beatrice, C., see A. Maraner 104
Beckley, P., see D. Snell 167
Beckley, P., see E. Mivehchi 405
Benasciutti, R., see L. Battistini 603
Benda, O. and J. Bydžovský, Investigation of the influence of annealing on the magnetic properties of Metglas using the Preisach model 93
Benford, J.G., see S.L. Ames 190
Bengtsson, C., see F. Löffler 561
Beraud, C., see B. Astie 77
Bertoncello, R., see M. Carbucicchio 504
Bertotti, G., see V. Basso 111
Bertotti, G., see V.R.V. Ramanan 362
Bertotti, G., A. Canova, M. Chiampi, D. Chiarabaglio,

0304-8853/94/$07.00 © 1994 Elsevier Science B.V. All rights reserved

F. Fiorillo, A.M. Rietto, Core loss prediction combining physical models with numerical field analysis 647
Bhagat, N., see A. Gupta 291
Bigot, J., N. Lecaude, J.C. Perron, C. Milan, C. Ramiarinjaona, J.F. Rialland, Influence of annealing conditions on nanocrystallization and magnetic properties in $Fe_{73.5}Cu_1Nb_3Si_{13.5}B_9$ alloy 299
Birch, T.S., see B. Baholo 433
Birkfeld, M. and K.A. Hempel, A device for measuring the magnetic properties of ring specimens at high frequencies 393
Bishop, J.E.L., see H. Pfützner 49
Bobbio, S., G. Miano, L. Verolino, C. Visone, E. Zamparelli, Applications of a new model of scalar hysteresis to a series ferroresonant circuit 596
Böhönyey, A., see L.F. Kiss 334
Bonetti, E., L. Del Bianco, G. Valdrè, P. Allia, M. Baricco, P. Tiberto, F. Vinai, Mechanical spectroscopy and analytical TEM of structural transformation in the $Fe_{73.5}Cu_1Nb_3Si_{13.5}B_9$ alloy 357
Booth, T. and H. Pfützner, Characteristics of transformer core materials for flux normal to the sheet plane 183
Booth, T., see F. Löffler 561
Bordin, G., G. Buttino, A. Cecchetti, M. Poppi, Influence of the chemical etching on magnetic and electric properties of Co-rich amorphous sheets 259
Boubeker, B., J.P. Eymery, M.F. Denanot, E.L.H. Sayouty, A TEM and CEMS study of bcc Fe–Ni–Cr thin films 470
Boukhalfa, M., see G.H. Shirkoohi 443
Bozzini, B., see G. Zangari 511
Brissonneau, P., see M.C. Marion-Péra 156
Brissonneau, P., see A. Kedous-Lebouc 180
Brissonneau, P., see M.C. Marion-Péra 396
Brun, C., see T. Waeckerlé 195
Buttino, G., see G. Bordin 259
Bydžovský, J., see O. Benda 93

Cahoreau, M., see P. Pain 493
Campopiano, A., see G. Abbruzzese 123
Candolfo, D., F. Malizia, F. Ronconi, G. Zini, Magnetization of pressureless sintered Fe–B powders 463
Canova, A., see G. Bertotti 647
Cappio, G., see S.D. Rossi 474
Carbucicchio, M., G. Palombarini, R. Bertoncello, A. Glisenti, E. Tondello, G. Sberveglieri, S. Groppelli, A study of sputtered Fe–Al multilayers and their stability at 400 K in an oxidizing atmosphere 504
Carrizo, J., see M. Tejedor 342
Carvalho, A., see M. Godinho 457
Cavallotti, P.L., see G. Zangari 511
Cecchetti, A., see G. Bordin 259
Chen, C.J., see C.S. Liu 478
Chen, C.J., see J.C. Lin 508
Chen, J.L., see J.C. Lin 508
Chen, L.J., see J.C. Lin 508
Chiaia, G., see S.D. Rossi 474
Chiampi, M., D. Chiarabaglio, M. Repetto, An accurate investigation on numerical methods for nonlinear magnetic field problems 591
Chiampi, M., see G. Bertotti 647
Chiarabaglio, D., see M. Chiampi 591
Chiarabaglio, D., see G. Bertotti 647
Chiriac, H., F. Barariu, Gh. Pop, On the magnetic properties of amorphous FeSiB and FeSiBC wires 325
Chiricozzi, E., F. Parasiliti, M. Villani, G. Vigliaturo, R. Gubiotti, Electrical steels for high-efficiency motors 533
Cho, Y.-S., see K.-S. Kim 283
Ciccacci, F., see S.D. Rossi 474
Ciurzyńska, W., see J. Zbroszczyk 347
Ciurzyńska, W., J. Zbroszczyk, J. Olszewski, J. Frąckowiak, K. Narita, Order–disorder effect on magnetic properties of rapidly quenched Fe–6.5%Si alloy 351
Cnops, J., see D. Philips 540
Cohen, R., see M.V.P. Altoé 317
Cornut, B., see M.C. Marion-Péra 156
Cornut, B., see M. Mekhiche 159
Cornut, B., see A. Kedous-Lebouc 180
Cornut, B., see M.C. Marion-Péra 396
Cornut, B., see N. Nencib 553
Crottier-Combe, S., S. Audisio, J. Degauque, B. Viala, Siliconization and aluminization up to 6.5 wt% of iron sheets: evolution of magnetomechanical and magnetic properties 205

Dautain, M., see R. Kaczmarek 466
De Cooman, B.C., see K. Eloot 223
De Jong, M., see A. van Oudenaarden 251
Degauque, J., see Y. Gannac 63
Degauque, J., see B. Astie 77
Degauque, J., see S. Crottier-Combe 205
Degauque, J., see E. Ferrara 366
Del Bianco, L., see E. Bonetti 357
Delincé, F., A. Nicolet, W. Legros, A. Genon, Analysis of ferroresonance with a finite element method taking hysteresis into account 557
Della Torre, E., F. Vajda, G.R. Kahler, Modeling magnetic materials with the complete moving hysteresis model 6
Denanot, M.F., see B. Boubeker 470
Denanot, M.F., see P. Pain 493
Derebasi, N. and T. Meydan, Effect of tension and surface properties on domain wall motion in amorphous materials 28
Didosyan, Y.S., Measurements of domain wall velocity by the dark field method 425
Dietzmann, G., see M. Schaefer 303
Dilewijns, J., see K. Eloot 223
Dinduns, S.S., U.A. Ulmanis, A.S. Smirnov, Magnetic manifestations of cation redistribution in ferrites 497

Dinhut, J.F., see P. Pain 493
Donzella, G. and S. Granzotto, Some experimental results about the correlation between Barkhausen noise and the fatigue life of steel specimens 613
D'Orazio, F., F. Giammaria, F. Lucari, Multiple reflection phenomena in magneto-optical studies of thick samples 419
Dormann, J.L., see R. Zysler 71
Dormann, J.L., see M. Godinho 457
Drake, A.E., Traceable magnetic measurements 371
Du Trémolet de Lacheisserie, E., see E. Ferrara 366
Dupré, L., see D. Philips 540

El Ghannami, M., T. Kulik, A. Hernando, L. Fernández Barquín, J.C. Gómez Sal, P. Gorria, J.M. Barandiarán, Influence of the preparation conditions on the magnetic properties and electrical resistivity of $Fe_{73.5}Nb_3Cu_1Si_{13.5}B_9$ nanocrystalline alloys 314
Eloot, K., J. Dilewijns, C. Standaert, B.C. De Cooman, Evaluation of the susceptibility of an electrical steel to magnetic aging using a new internal friction technique 223
Emura, M., see M.V.P. Altoé 317
Enokizono, M., S. Kanao, K. Yuki, Permeability tensor of grain-oriented silicon steel sheet 209
Enokizono, M., S. Kanao, S. Kawano, Two-dimensional magnetic properties of silicon steel sheet subjected to an alternating field 212
Enokizono, M. and Y. Midou, Moving simulation of magnetic domain structure in grain-oriented silicon steel sheet 568
Enokizono, M., T. Todaka, T. Maeda, Inverse analysis with neural networks 571
Enokizono, M. and A. Nishimizu, Effect of thermal fatigue on Barkhausen noise 599
Errard, S., see A. Kedous-Lebouc 180
Exel, G., see J.P. Sinnecker 20
Eymery, J.P., see B. Boubeker 470
Eymery, J.P., see P. Pain 493

Fagot, M., see B. Astie 77
Fagot, M., see E. Ferrara 366
Fard, S.M.B. and A.J. Moses, A method of modelling the anisotropy of electro-technical steels in the finite element method 536
Fernández Barquín, L., see M. El Ghannami 314
Ferrara, E., see B. Astie 77
Ferrara, E., F. Fiorillo, M. Pasquale, A. Stantero, M. Baricco, J. Degauque, M. Fagot, B. Viala, E. du Trémolet de Lacheisserie, J.L. Porteseil, Role of material purity on the structural and magnetic properties of rapidly solidified FeSi 6.5 wt% alloys 366
Fessant, A., J. Gieraltowski, J. Loaec, D. Spenato, H.L. Gall, A broad-band method for measuring the complex permeability of thin soft magnetic films 413
Filho, A.F.F., see A. Basak 640
Filoti, G., see J. Neamtu 481
Fiorani, D., see R. Zysler 71
Fiorani, D., F. Malizia, F. Ronconi, A.M. Testa, Magnetic properties of $Fe_{80}B_{20}$ alloy with nanocrystalline structures 295
Fiorillo, F., see C. Appino 107
Fiorillo, F., see E. Ferrara 366
Fiorillo, F., see G. Bertotti 647
Fontana, G., see G. Zangari 511
Fortunati, S., On the metallurgical control of texture sharpness and related magnetic properties in grain-oriented silicon–iron 216
Frąckowiak, J., see W. Ciurzyńska 351
Frost, D.C., see A. Nafalski 617
Fujikura, M., T. Yamada, T. Sato, High saturation magnetic induction amorphous Fe–Si–B alloys with improved thermal stability by addition of tin 273
Fujiwara, K., see T. Nakata 377
Fujiwara, K., see T. Nakata 416
Fukunaga, H., H. Abe, Y. Ohta, H. Kakehashi, Evaluation of magnetization models for simultaneous analysis of flux and temperature distributions in ferrite cores 516
Fulmek, P., see H. Hauser 32
Futschik, K., see G. Harasko 409

Gall, H.L., see A. Fessant 413
Galletly, J.E., see A.Z. Maksymowicz 40
Gannac, Y., J. Degauque, B. Viala, J.P. Redoules, Models of the magnetic behaviour of GO and NO (3.2 wt% Si) and rapidly quenched (6.5 wt% Si) iron–silicon alloys 63
García, A., see M. Rodríguez 36
García, J.A., see M. Tejedor 342
García-Arribas, A., see J.M. Barandiarán 46
Gavrila, H., see T. Waeckerlé 101
Gawior, W., L.J. Maksymowicz, W. Malec, Irreversible relaxation processes in amorphous $Co_{71.5}Fe_{2.5}Mn_2Mo_1Si_9B_{14}$ ribbons 262
Gawior, W., see R. Kolano 321
Genon, A., see F. Delincé 557
Geoffroy, O. and J.L. Porteseil, Scaling properties of irreversible magnetization and their consequences on the macroscopic behaviour of soft materials 1
Giammaria, F., see F. D'Orazio 419
Gieraltowski, J., see A. Fessant 413
Girão, P.S., see H.G. Ramos 574
Glisenti, A., see M. Carbucicchio 504
Godec, M., see M. Jenko 229
Godinho, M., A. Carvalho, M. Noguès, J.L. Dormann, M. Seqqat, Field and temperature dependence of magnetic viscosity in randomly canted Li–Ti ferrite 457
Goktepe, M. and T. Meydan, Influence of bending stress on flux distribution in toroidal transducers 550
Goleman, R., A high-speed induction motor making use of the third harmonic of the magnetic flux 624
Gómez Sal, J.C., see M. El Ghannami 314
Gornakov, V.S. and V.T. Synogach, Dynamic instability and magnetic after-effect in domain wall dynamics 24

Gorria, P., see M. El Ghannami 314
Gramm, K., see F. Löffler 561
Granzotto, S., see G. Donzella 613
Greifeneder, G., see J.P. Sinnecker 20
Groniecki, P., C.L. Ramiarinjaona, J.F. Rialland, Predetermination of the magnetic characteristics of stacked ferromagnetic sheets 621
Groppelli, S., see M. Carbucicchio 504
Grössinger, R., see J.P. Sinnecker 20
Grössinger, R., see J.P. Sinnecker 270
Gubiotti, R., see E. Chiricozzi 533
Gupta, A., N. Bhagat, G. Principi, A. Hernando, Formation of nanocrystalline phases by crystallization of metallic glasses 291
Gutiérrez, J., see J.M. Barandiarán 46

Harase, J., see Y. Nakamura 153
Harasko, G., see H. Pfützner 49
Harasko, G., H. Pfützner, K. Futschik, On the effectiveness of magnetotactic bacteria for visualizations of magnetic domains 409
Hartmann, U., see G. Matteucci 422
Hauser, H. and P. Fulmek, Simulation of magnetization curves of anisotropic materials 32
Havlíček, V. and I. Zemąnek, On-line ac magnetic measurements accuracy 399
Hayakawa, Y., see M. Komatsubara 163
Hempel, K.A., see W. Salz 144
Hempel, K.A., see M. Birkfeld 393
Hernando, A., see A. Gupta 291
Hernando, A., see I. Navarro 306
Hernando, A., see T. Kulik 310
Hernando, A., see M. El Ghannami 314
Hernando, B., see M. Tejedor 338
Herzer, G., Magnetic field-induced anisotropy in nanocrystalline Fe–Cu–Nb–Si–B alloys 248
Heye, W., see C. Wittwer 287
Hiratani, T., see T. Yamaji 187
Hirotsu, Y., see A. Makino 329
Horrocks, D.H., see E. Mivehchi 405
Howe, D., see B. Baholo 433
Howe, D., see K. Atallah 578
Humphrey, F.B. and M. Redjdal, Domain wall structure in bulk magnetic materials 11

Inaba, H., T. Abe, Y. Kitano, J. Shimomura, Magnetic properties and the grain boundary structure of Mn–Zn ferrites with the addition of Nb_2O_5 487
Inoue, A., see A. Makino 329
Iranmanesh, H., see E. Mivehchi 405
Ishihara, Y., see Y. Tamura 382
Ishiyama, K., see K.I. Arai 198
Ishiyama, K., see K.I. Arai 233

Jenko, M., F. Vodopivec, B. Praček, M. Godec, D. Steiner, AES studies of antimony surface segregation in non-oriented silicon steel 229

Kachalov, V.M., see V.A. Makarov 354
Kaczkowski, Z., É. Kisdi-Koszó, L. Potockỳ, Magnetomechanical coupling in $Fe_{81.5}Cr_{4.5}B_{14}$ metallic glasses produced in a magnetic field 266
Kaczmarek, J., see A. Basak 583
Kaczmarek, R., see M. Amar 140
Kaczmarek, R. and M. Dautain, Measurements of the local hysteresis loop on soft polycrystalline ferrites by the longitudinal Kerr effect 466
Kahler, G.R., see E. Della Torre 6
Kakehashi, H., see H. Fukunaga 516
Kanao, S., see M. Enokizono 209
Kanao, S., see M. Enokizono 212
Kaul, S.N., see L.F. Barquín 82
Kawano, M., see M. Komatsubara 163
Kawano, S., see M. Enokizono 212
Kawasaki, K., see T. Shimazu 147
Kedous-Lebouc, A., see M.C. Marion-Péra 156
Kedous-Lebouc, A., S. Errard, B. Cornut, P. Brissonneau, Magnetic loss and $B(H)$ behaviour of non-oriented electrical sheets under a trapezoidal exciting field 180
Kedous-Lebouc, A., see M.C. Marion-Péra 396
Kedous-Lebouc, A., see N. Nencib 553
Kim, K.-S., see S.-C. Yu 67
Kim, K.-S., S.-C. Yu, S.-K. Oh, Y.-S. Cho, T.-K. Kim, Thermomagnetic properties and spin-wave excitation of the nanocrystalline $Fe_{68.5}Co_5Mo_3Cu_1Si_{13.5}B_9$ alloy 283
Kim, K.-Y., see S.-C. Yu 67
Kim, M.-S., see S.-C. Yu 67
Kim, T.-K., see K.-S. Kim 283
Kim, Y.H., see K.I. Arai 198
Kisdi-Koszó, É., see Z. Kaczkowski 266
Kisdi-Koszó, É., É. Zsoldos, G. Radnóczi, L.K. Varga, A. Lovas, J. Kovác, Relaxation, cluster formation or precrystallization in amorphous alloys 276
Kisdi-Koszó, É., see L.K. Varga 280
Kiss, L.F., see L.K. Varga 280
Kiss, L.F., A. Böhönyey, A. Lovas, Determination of reversible Curie point relaxation spectra in Fe–B metallic glasses 334
Kitano, Y., see H. Inaba 487
Knobel, M., see P. Allia 243
Knobel, M., J.P. Sinnecker, J.F. Saenger, R.S. Turtelli, Initial magnetic permeability during the development of the nanocrystalline state in amorphous ribbons 255
Knobel, M., see J.P. Sinnecker 270
Kolano, R., M. Kuźmiński, W. Gawior, N. Wójcik, Induced transverse magnetic anisotropy and domain structure in Co-based amorphous ribbons 321
Kolatchevsky, N.N., see V.V. Kolatchevsky 60
Kolatchevsky, V.V. and N.N. Kolatchevsky, Magnetic moment fluctuations in samples with near-to-rectangular hysteresis loops 60

Komatsubara, M., Y. Hayakawa, M. Kawano, Effect of grain orientation on magnetic properties in secondary recrystallized 3% Si steel 163
Kontopoulos, A.S., see G.H. Shirkoohi 587
Kovác, J., see É. Kisdi-Koszó 276
Kozłowski, M. and M. Pietruszka, Quasi 3-D magnetic field computation for the layer structure of transformer cores 544
Krishnan, R. and H. Lassri, Magnetic and magneto-optical properties of Co–Ni/Pt multilayers 453
Krishnan, R., see R. Żuberek 490
Kulik, T., A. Hernando, M. Vazquez, Correlation between structure and the magnetic properties of amorphous and nanocrystalline $Fe_{73.5}Cu_1Nb_3Si_{22.5-x}B_x$ alloys 310
Kulik, T., see M. El Ghannami 314
Kuß, C., see J.P. Sinnecker 20
Kuwata, K., see A. Saito 627
Kuźmiński, M., see R. Kolano 321

Lachowicz, H.K. and A. Ślawska-Waniewska, Coexistence of various magnetic phases in nanocrystalline Fe-based metallic glasses 238
Lambeck, M., see St. Seeck 53
Lancarotte, M.S., see M.V.P. Altoé 317
Lassri, H., see R. Krishnan 453
Lecaude, N., see J. Bigot 299
Legros, W., see F. Delincé 557
Lin, J.C., L.J. Chen, C.J. Chen, J.L. Chen, Study on the interface of ferrite/Sendust film 508
Ling, P.C.Y., see F. McQuade 136
Liu, C.S., J.M. Wu, C.J. Chen, M.J. Tung, Power loss properties of Mn–Zn ferrites containing Er_2O_3 478
Lloyd, G., see A. Basak 564
Lloyd, G., see A. Basak 583
Lo Bue, M., see V. Basso 111
Loaec, J., see A. Fessant 413
Löffler, F., H. Pfützner, T. Booth, C. Bengtsson, K. Gramm, Influence of overlap length in stacked transformer cores consisting of several packages 561
Lopes Ribeiro, A., Characterization of soft magnetic materials using a modified Stoner–Wohlfarth model 97
López, E., see M. Rodríguez 36
López, E., C. Aroca, M. Maícas, M.C. Sánchez, P. Sánchez, Influence of domain wall stabilization on dynamic losses in amorphous ribbons 74
Lovas, A., see É. Kisdi-Koszó 276
Lovas, A., see L.F. Kiss 334
Lubecka, M., L.J. Maksymowicz, R. Szymczak, Magnetic behavior of the spin glass state in $CdCr_{2x}In_{2-2x}Se_4$ thin films 484
Lucari, F., see F. D'Orazio 419

Maeda, T., see M. Enokizono 571
Magdoń, M.S., see A.Z. Maksymowicz 40
Mager, S. and J. Wieting, Influence of the hot rolling conditions on texture formation in Fe–Si sheets 170
Magni, A., see V. Basso 111
Maicas, M., see M. Rodríguez 36
Maícas, M., see E. López 74
Maisto, P.G., see G. Zangari 511
Makarov, V.A., S.G. Zaichenko, A.I. Zaitsev, V.M. Kachalov, Structure, stresses and magnetic properties of iron-based amorphous alloys with phosphorus after heat treatment giving rise to surface crystallization 354
Makino, A., K. Suzuki, A. Inoue, Y. Hirotsu, T. Masumoto, Magnetic properties and microstructure of nanocrystalline bcc Fe–M–B (M = Zr, Hf, Nb) alloys 329
Makino, A., see Y. Yamamoto 500
Maksymowicz, A.Z., J.E. Galletly, M.S. Magdoń, I.L. Maksymowicz, Genetic algorithm approach for Ising model 40
Maksymowicz, I.L., see A.Z. Maksymowicz 40
Maksymowicz, L.J., see W. Gawior 262
Maksymowicz, L.J., see M. Lubecka 484
Malec, W., see W. Gawior 262
Malizia, F., see D. Fiorani 295
Malizia, F., see D. Candolfo 463
Malvicino, C., A. Arri, E. Ansaldi, A particular thermal behaviour of residual magnetism in cast iron 42
Maraner, A., C. Beatrice, P. Mazzetti, Determination of domain wall surface energy by high-frequency wall mobility measurements in amorphous ribbons 104
Marion-Péra, M.C., see T. Waeckerlé 101
Marion-Péra, M.C., A. Kedous-Lebouc, B. Cornut, P. Brissonneau, Evaluation of intralaminar losses in magnetic cores 156
Marion-Péra, M.C., A. Kedous-Lebouc, B. Cornut, P. Brissonneau, Analysis and comparison of magnetic sheet insulation tests 396
Masumoto, T., see A. Makino 329
Matsumura, A., see A. Basak 583
Matsuo, Y., see T. Nozawa 115
Matteucci, G., M. Muccini, U. Hartmann, Stray-field investigations on sharp ferromagnetic tips by electron holography 422
Mazzetti, P., see A. Maraner 104
McQuade, F., A.J. Moses, P.C.Y. Ling, Correlation of internal stress and power loss with domain motion in strip wound magnetic cores 136
Mekhiche, M., T. Waeckerlé, B. Cornut, Influence of low Al content on anomalous growth in 3% Si–Fe magnetic sheets 159
Mekhiche, M., see T. Waeckerlé 195
Melkebeek, J., see D. Philips 540
Mellor, P.H., see B. Baholo 433
Mende, M., see W. Salz 144
Meydan, T., see N. Derebasi 28
Meydan, T., Application of amorphous materials to sensors 525
Meydan, T., see M. Goktepe 550

Miano, G., see S. Bobbio 596
Midou, Y., see M. Enokizono 568
Milan, C., see J. Bigot 299
Missell, F.P., see M.V.P. Altoé 317
Mivehchi, E., D.H. Horrocks, H. Iranmanesh, P. Beckley, Domain wall speed measurement of Si–Fe samples at 50 Hz magnetisation from dynamic SEM images 405
Mizogami, M., see T. Nozawa 115
Mogi, H., see T. Nozawa 115
Mora, M., see C. Morón 57
Morón, C. and M. Mora, Magnetization processes simulation in a ferromagnetic Ising model 57
Morón, C. and E. Suárez, Non-contact digital speed sensor 610
Moses, A.J., see F. McQuade 136
Moses, A.J., see A. Shahvarooghi 386
Moses, A.J., see G.H. Shirkoohi 440
Moses, A.J., see S.M.B. Fard 536
Moses, A.J., M. Yasin, M. Soiński, Evaluation of novel transformer cores 637
Muccini, M., see G. Matteucci 422
Murashige, S., see A. Saito 174
Mykolaitis, H., Cyclic magnetization noise of nonlinear ferromagnetic cores 520

Nafalski, A. and D.C. Frost, Study of an amorphous alloy core transformer 617
Nakamura, Y., Y. Okazaki, J. Harase, N. Takahashi, The dc and ac magnetic properties of a high-purity grain-oriented iron sheet 153
Nakano, M., see T. Nakata 377
Nakano, M., see T. Nakata 416
Nakata, T., N. Takahashi, K. Fujiwara, M. Nakano, Numerical analysis of flux distributions in cores made of anisotropic materials 377
Nakata, T., N. Takahashi, K. Fujiwara, M. Nakano, Study of horizontal-type single sheet testers 416
Nakesch, H. and H. Pfützner, Magnetostrictive amorphous sensor for the detection of human respiration 634
Narita, K., see X. Yu 344
Narita, K., see J. Zbroszczyk 347
Narita, K., see W. Ciurzyńska 351
Navarro, I. and A. Hernando, Magnetic and structural properties of nanocrystalline $Fe_{77}B_{19}Cu_1Nb_3$ alloy 306
Neamtu, J., V. Spinu, G. Filoti, Magnetic and Mössbauer studies of Ti^{4+}-substituted soft Mn–Zn ferrites 481
Nencib, N., A. Kedous-Lebouc, B. Cornut, 3D analysis of a rotational loss tester with vertical yokes 553
Nicolet, A., see F. Delincé 557
Nishimizu, A., see M. Enokizono 599
Noguès, M., see M. Godinho 457
Noh, T.-H., see S.-C. Yu 67
Novikov, A., N. Stroyev, K. Stroyev, A. Shiriayev, PC-controlled complex for measuring parameters of soft magnetic materials at frequencies as high as 5 MHz 429
Nozawa, T., M. Mizogami, H. Mogi, Y. Matsuo, Domain structures and magnetic properties of advanced grain-oriented silicon steel 115

Oh, S.-K., see K.-S. Kim 283
Ohta, Y., see H. Fukunaga 516
Okada, K., see T. Yamaji 187
Okazaki, Y., see Y. Nakamura 153
Olszewski, J., see J. Zbroszczyk 347
Olszewski, J., see W. Ciurzyńska 351
Ossart, F., see T. Péra 150

Pain, P., J.P. Eymery, M. Cahoreau, M.F. Denanot, J.F. Dinhut, Structural and magnetic properties of Fe–Co thin films elaborated by ion-beam sputtering 493
Palombarini, G., see M. Carbucicchio 504
Parasiliti, F., see E. Chiricozzi 533
Pasquale, M., see V.R.V. Ramanan 362
Pasquale, M., see E. Ferrara 366
Péra, T., T. Waeckerle, F. Ossart, Experimental checking of the coenergy model using a rotating field device 150
Perron, J.C., see J. Bigot 299
Petrillo, C. and F. Sacchetti, High-temperature spin density of FeCo: effect of lattice vibrations on the electron distribution 90
Pfützner, H., J.E.L. Bishop, G. Harasko, A multi-parametric domain model for highly grain-oriented polycrystalline Si–Fe 49
Pfützner, H., see T. Booth 183
Pfützner, H., see G. Harasko 409
Pfützner, H., see F. Löffler 561
Pfützner, H., see H. Nakesch 634
Philips, D., L. Dupré, J. Cnops, J. Melkebeek, The application of the Preisach model in magnetodynamics: theoretical and practical aspects 540
Pietruszka, M., see M. Kozłowski 544
Pokatilov, V., Local atomic and magnetic structure of microcrystalline Fe–Al alloys 86
Pop, Gh., see H. Chiriac 325
Poppi, M., see G. Bordin 259
Porteseil, J.L., see O. Geoffroy 1
Porteseil, J.L., see E. Ferrara 366
Potockỳ, L., see Z. Kaczkowski 266
Praček, B., see M. Jenko 229
Principi, G., see A. Gupta 291
Protat, F., see M. Amar 140

Quan, B., see X. Yu 344

Radnóczi, G., see É. Kisdi-Koszó 276
Ramanan, V.R.V., M. Pasquale, G. Bertotti, The influence of microstructure on power losses in Fe–B–Si metallic glasses 362

Ramiarinjaona, C., see J. Bigot 299
Ramiarinjaona, C.L., see P. Groniecki 621
Ramos, H.G., A.L. Ribeiro, P.S. Girão, A two-dimensional vector model of ferromagnetic hysteresis 574
Rasek, J., see J. Zbroszczyk 347
Redjdal, M., see F.B. Humphrey 11
Redoules, J.P., see Y. Gannac 63
Rekveldt, M.Th., see A. van Oudenaarden 251
Repetto, M., see M. Chiampi 591
Rialland, J.F., see J. Bigot 299
Rialland, J.F., see P. Groniecki 621
Ribeiro, A.L., see H.G. Ramos 574
Riehemann, W., see B. Weidenfeller 177
Riehemann, W., see C. Wittwer 287
Rietto, A.M., see G. Bertotti 647
Rodríguez, M., A. García, M. Maicas, C. Aroca, E. López, M.C. Sánchez, P. Sánchez, Induction of bistability in low-magnetostriction amorphous ribbons 36
Ronconi, F., see D. Fiorani 295
Ronconi, F., see D. Candolfo 463
Rosenson, A.E. and S.A. Shekh, Finite element modelling of magnets for nuclear magnetic resonance 547
Rossi, S.D., G. Cappio, G. Chiaia, F. Ciccacci, Spin-resolved inverse photoemission from Fe films epitaxially grown on Ag(100) 474
Rosypal, F., Decarburization annealing of grain-oriented silicon steel with AlN as inhibitor 220
Roth, S., A two-dimensional model of a ferromagnet with fine grains 16
Sacchetti, F., see C. Petrillo 90
Saenger, J.F., see M. Knobel 255
Saito, A., S. Murashige, Y. Uehara, Two-dimensional stress–magnetization effects of grain-oriented silicon steel sheets 174
Saito, A., K. Kuwata, K. Yamamoto, Application of amorphous ribbon as a stress sensor 627
Sal, J.C.G., see L.F. Barquín 82
Salz, W., K.A. Hempel, M. Mende, Loss separation under elliptically rotating ***B***-field with bias field in electrical steel 144
Sánchez, M.C., see M. Rodríguez 36
Sánchez, M.C., see E. López 74
Sánchez, M.L., see M. Tejedor 338
Sánchez, P., see M. Rodríguez 36
Sánchez, P., see E. López 74
Sasaki, T., see T. Tanaka 201
Sasaki, T., see S. Takada 226
Sasaki, T., see T. Yamamoto 446
Sasaki, T., see S. Takada 450
Sato, T., see M. Fujikura 273
Sayouty, E.L.H., see B. Boubeker 470
Sberveglieri, G., see M. Carbucicchio 504
Schaefer, M. and G. Dietzmann, Magnetic properties of as-cast and nanocrystallized $Fe_{74.5}Cu_{0.75}Nb_{2.25}Si_{13.5}B_9$ amorphous ribbons 303
Seeck, St. and M. Lambeck, Noncyclic magnetization processes in relation to the Preisach model 53
Seqqat, M., see M. Godinho 457
Shahvarooghi, A. and A.J. Moses, High-speed computerised dc magnetisation and demagnetisation of mild steel 386
Shekh, S.A., see A.E. Rosenson 547
Shimazu, T., M. Shiozaki, K. Kawasaki, Effect of temper rolling on texture formation of semi-processed non-oriented steel 147
Shimomura, J., see H. Inaba 487
Shiozaki, M., see T. Shimazu 147
Shiriayev, A., see A. Novikov 429
Shirkoohi, G.H. and A.J. Moses, Anisotropic dependence of hysteresis and eddy current components of iron loss in non-oriented steels 440
Shirkoohi, G.H. and M. Boukhalfa, Effect of stress on deviation of the in-plane flux from the longitudinal direction in single strip testers 443
Shirkoohi, G.H. and A.S. Kontopoulos, Computation of magnetic field in Rogowski–Chattock potentiometer (RCP) compensated magnetic testers 587
Shirkoohi, G.H. and A.M. Yahya, Localised flux and iron loss in the tooth tip region of a three-phase induction machine stator core 644
Sietsma, J., see A. van Oudenaarden 251
Sievert, J., Determination of the density of magnetic sheet steel using strip and sheet specimens 390
Sinnecker, J.P., R. Grössinger, R.S. Turtelli, G. Exel, G. Greifeneder, C. Kuß, Quenched-in stresses in amorphous ribbons 20
Sinnecker, J.P., see M. Knobel 255
Sinnecker, J.P., M. Knobel, R. Grössinger, R.S. Turtelli, Coercivity and disaccommodation on amorphous $(Fe_{1-x}R_x)_{80}B_{20}$ 270
Ślawska-Waniewska, A., see H.K. Lachowicz 238
Smirnov, A.S., see S.S. Dinduns 497
Snell, D. and P. Beckley, Domain refinement of high-permeabilty grain-oriented electrical steel using low-friction ball units 167
Soiński, M., see A.J. Moses 637
Spenato, D., see A. Fessant 413
Spinu, V., see J. Neamtu 481
Standaert, C., see K. Eloot 223
Stantero, A., see B. Astie 77
Stantero, A., see E. Ferrara 366
Steiner, D., see M. Jenko 229
Stroyev, K., see A. Novikov 429
Stroyev, N., see A. Novikov 429
Suárez, E., see C. Morón 610
Sugimoto, M., Amorphous characteristics in spinel ferrites containing glassy oxides 460
Suzuki, K., see A. Makino 329
Świerczek, J., see J. Zbroszczyk 347
Synogach, V.T., see V.S. Gornakov 24
Szymczak, H., see R. Żuberek 490

Szymczak, R., see M. Lubecka 484
Szymura, S., see J. Zbroszczyk 347

Takada, S., see T. Tanaka 201
Takada, S. and T. Sasaki, Magnetostrictions of electrical iron sheets under controlled magnetization 226
Takada, S., see T. Yamamoto 446
Takada, S., F. Tokutake, T. Sasaki, Magnetic losses in amorphous ribbons excited with symmetrical and asymmetrical rectangular voltages 450
Takada, Y., see T. Yamaji 187
Takahashi, N., see Y. Nakamura 153
Takahashi, N., see T. Nakata 377
Takahashi, N., see T. Nakata 416
Tamura, Y., Y. Ishihara, T. Todaka, Measurement of magnetic characteristics of silicon steel in any direction by RSST and SST: method and relationship 382
Tanaka, T., H. Yashiki, S. Takada, T. Sasaki, Effect of metallurgical factors on the magnetic properties of non-oriented electrical steels under PWM excitation 201
Tassi, A., see L. Battistini 603
Taylor, R., The electronic detection of fine grain in large grained electrical steels 402
Tejedor, M., B. Hernando, M.L. Sánchez, Reversible permeability for perpendicularly superposed induction in metallic glasses for fluxgate sensors 338
Tejedor, M., J.A. García, J. Carrizo, Anisotropy and roughness in as-quenched $Co_{66}Si_{16}B_{12}Fe_4Mo_2$ amorphous ribbons 342
Terrenzio, E., see G. Zangari 511
Tessier, M., see R. Żuberek 490
Testa, A.M., see R. Zysler 71
Testa, A.M., see D. Fiorani 295
Tiberto, P., see P. Allia 243
Tiberto, P., see E. Bonetti 357
Todaka, T., see Y. Tamura 382
Todaka, T., see M. Enokizono 571
Tokutake, F., see S. Takada 450
Tondello, E., see M. Carbucicchio 504
Tung, M.J., see C.S. Liu 478
Turtelli, R.S., see J.P. Sinnecker 20
Turtelli, R.S., see M. Knobel 255
Turtelli, R.S., see J.P. Sinnecker 270

Uehara, Y., see A. Saito 174
Ulmanis, U.A., see S.S. Dinduns 497
Ummarino, G., see V. Basso 111

Vajda, F., see E. Della Torre 6
Valdrè, G., see E. Bonetti 357
Valkovic, Z., Effect of electrical steel grade on transformer core audible noise 607
Van den Beukel, A., see A. van Oudenaarden 251
Van Oudenaarden, A., M. de Jong, J. Sietsma, M.Th. Rekveldt, A. van den Beukel, Internal stress distribution in amorphous $Fe_{40}Ni_{40}B_{20}$ studied by field dependent neutron depolarization 251
Varga, L.K., see É. Kisdi-Koszó 276
Varga, L.K., É. Bakos, É. Kisdi-Koszó, É. Zsoldos, L.F. Kiss, Time and temperature dependence of nanocrystalline structure formation in a Finemet-type amorphous alloy 280
Vazquez, M., see T. Kulik 310
Verolino, L., see S. Bobbio 596
Viala, B., see Y. Gannac 63
Viala, B., see S. Crottier-Combe 205
Viala, B., see E. Ferrara 366
Vigliaturo, G., see E. Chiricozzi 533
Villani, M., see E. Chiricozzi 533
Vinai, F., see P. Allia 243
Vinai, F., see E. Bonetti 357
Visone, C., see S. Bobbio 596
Vodopivec, F., see M. Jenko 229

Wac-Włodarczyk, A., A magnetic frequency nontupler supplied with increased frequency 630
Waeckerlé, T., H. Gavrila, M.C. Marion-Péra, A method of describing magnetic behaviour based on metallurgical features 101
Waeckerle, T., see T. Péra 150
Waeckerlé, T., see M. Mekhiche 159
Waeckerlé, T., M. Mekhiche, C. Brun, Improvement of magnetic permeability in pure iron sheets 195
Weidenfeller, B. and W. Riehemann, Frequency dependence of loss-improvement of grain oriented silicon steels by laser scribing 177
Wieting, J., see S. Mager 170
Wittwer, C., W. Riehemann, W. Heye, Dynamic losses in nanocrystalline finemet for various annealing temperatures 287
Wójcik, N., see R. Kolano 321
Wu, J.M., see C.S. Liu 478
Wysłocki, B., see J. Zbroszczyk 347

Yahya, A.M., see G.H. Shirkoohi 644
Yamada, T., see M. Fujikura 273
Yamaguchi, M., see K.I. Arai 198
Yamaji, T., M. Abe, Y. Takada, K. Okada, T. Hiratani, Magnetic properties and workability of 6.5% silicon steel sheet manufactured in continuous CVD siliconizing line 187
Yamamoto, K., see A. Saito 627
Yamamoto, T., S. Takada, T. Sasaki, Estimation of measuring error in digital dc fluxmeters 446
Yamamoto, Y. and A. Makino, Core losses and magnetic properties of Mn–Zn ferrites with fine grain sizes 500
Yashiki, H., see T. Tanaka 201
Yasin, M., see A.J. Moses 637
Yu, C.H., see A. Basak 564

Yu, S.-C., K.-S. Kim, M.-S. Kim, K.-Y. Kim, T.-H. Noh, Spin wave stiffness constants of amorphous Fe–Zr–B–Nb alloys 67
Yu, S.-C., see K.-S. Kim 283
Yu, X., B. Quan, K. Narita, Magnetic properties of flash annealed Fe-based amorphous cores 344
Yuki, K., see M. Enokizono 209

Zaichenko, S.G., see V.A. Makarov 354
Zaitsev, A.I., see V.A. Makarov 354
Zamparelli, E., see S. Bobbio 596
Zangari, G., B. Bozzini, P.L. Cavallotti, G. Fontana, P.G. Maisto, E. Terrenzio, Coercivity and microstructure in Co–Pt and Co–Pd thin films 511
Zbroszczyk, J., W. Ciurzyńska, B. Wysłocki, S. Szymura, J. Olszewski, J. Świerczek, J. Rasek, K. Narita, Grain orientation and low magnetic field properties of microcrystalline Fe–Si ribbons 347
Zbroszczyk, J., see W. Ciurzyńska 351
Zemąnek, I., see V. Havlíček 399
Zini, G., see D. Candolfo 463
Zsoldos, É., see É. Kisdi-Koszó 276
Zsoldos, É., see L.K. Varga 280
Żuberek, R., H. Szymczak, R. Krishnan, M. Tessier, Influence of interdiffusion layer on magnetostriction of Fe/CoNbZr multilayers 490
Zysler, R., D. Fiorani, J.L. Dormann, A.M. Testa, Magnetic properties of ultrafine α-Fe_2O_3 antiferromagnetic particles 71

ELSEVIER

Journal of Magnetism and Magnetic Materials 133 (1994) 661–663

journal of magnetism and magnetic materials

Subject index to volume 133 (1994)

Acoustic emission 599
Activation energy spectra 334
Aging 504
Amorphous materials 28, 251, 262, 525, 550, 610, 630, 634
Amorphous systems
– alloys 77, 82, 104, 107, 259, 273, 276, 280, 291, 295, 306, 317, 321, 334, 357, 362
– cores 344, 610
– films 460
– ribbons 36, 74, 255, 342, 450, 627
– wires 325
Anisotropy 36, 46, 107, 147, 377, 440, 497, 536, 621
– bulk 259
– effective 16
– energy 101
– field induced 248
– induced 266
– magnetic 32, 71, 150, 306, 321, 342, 574
– perpendicular 354
– surface 259, 453
Annealing 93, 287
– decarburization 220
– flash 344
Annealing atmospheres 159

Barkhausen noise 1, 60, 613
– rotational 599
Bias magnetic field 144
Biomagnetism 409, 634
Bistability in amorphous ribbons 36
Broad band measurements 413
Brushless motors 578, 640

Calibration procedures 437
Calorimetric measurements 433
Canted ferrimagnets 457
Cast iron 42
Casting 266
Chemical vapor deposition 187, 205
Co–Pd alloys 511
Co–Pt alloys 511
Coatings 156, 396
Coercive field 212, 310, 500
Coercivity 20, 270, 347
Compensation in magnetic measurements 399, 587
Complex permeability 500
Core loss 187, 201, 229, 329, 478, 564, 637, 647
Core materials 67
Core package interactions 561
Crystallization 306, 310
– partial 280
Curie point 299, 334

Dc linear motors 583, 640
Demagnetization 53, 386
Density measurements 390
Design methods 617
Design optimization 533
Diffusion of alloying elements 205
Digital dc fluxmeter 446
Digital methods 437
Disaccomodation 20, 270
Disordered systems 484
Distribution transformers 564, 617
Domains 11, 32, 53, 57, 74, 115, 167, 402, 466
– models 49
– observations 77, 136, 409
– refinement 167, 177
– structure 251, 321, 568
– structure dynamics 198
Domain wall 1, 74, 405
– bowing 28, 49
– dynamics 11, 24, 104, 198, 425
– energy 568
– flexural waves 24
– pinning 115
Dynamic magnetic properties 212, 540

Economics 617
Eddy current
– loss 198, 205, 440
Electrical machines 433, 647
Electrical steel 170, 190, 390, 533, 587
Electron holography 422
Electron microscopy 77, 357
Electron states 90
Energy minimization 49
Energy saving 533
Exchange energy 283
Exchange interaction 67

Fatigue life 613
Fe–Co alloys 493
Fe–Si alloys 366
– 3% Si 159
– 6.5% Si 63, 187, 233, 347, 351
– grain oriented 49, 123, 216
Fe–Si sheets 140, 170, 212
Fe–Zr alloys 82
Ferrite 457, 466, 478, 481, 487, 497
– additives 487
Ferrite cores 516
– temperature distribution 516
Ferrite films 508
Ferritic temperature range 195
Ferro-resonant circuits 596
Ferromagnetism
– rotational 97
Film growth 470
Fine particle systems 71, 295
Finemet 233, 280, 287
Finite element method 516, 536, 544, 547, 553, 557, 587, 621
Flux distribution 516, 544, 550, 561, 637
– local 644
Frictionless and dustless movement 583

Genetic algorithm 40
Goss orientation 123, 190
Grain boundaries 487

0304-8853/94/$07.00 © 1994 Elsevier Science B.V. All rights reserved

Grain detection in silicon steels 402
Grain growth 123, 216
– anomalous 159
Grain orientation 163, 347
Grain oriented iron 153
Grain oriented silicon steel 63, 163, 174, 177, 220, 402, 536, 561, 637
– ultrathin 233

Heat treatement 266, 276, 280
Henkel plot 111
High energy magnets 640
High frequency magnetic properties 344, 487, 500
High frequency measurements 393
High magnetic flux densities 163
High-resolution magnetic imaging 422
Hot-rolling 195
Hurst exponent 599
Hyperfine fields 86, 470
Hysteresis 71, 77, 97, 557
Hysteresis loop 63, 74, 180, 347, 429, 466
Hysteresis loss 205, 440
Hysteresis model 6, 32
– scalar 596
– vectorial 574
– rotational 574

Induction motors 533, 624
Inhibition 220
Insulation tests 396
Interfaces in nanocrystalline alloys 295
Interfaces in sintered powders 463
Internal friction 223
Interstitials 223
Inverse problems 571
Iron 578
– pure 195, 205
Iron-based alloys 317
Iron cores 610
Iron losses 140, 163, 382, 416
Irradiation 497
Ising model 40, 57

Joule heating 243

Kerr effect 466
Kerr rotation
– double polar 460

Laser scribing 177
Loss improvement 177
Loss separation 144, 440, 450
Losses 1, 74, 433, 578
– intralaminar 156

Magnetic aftereffect 24, 107, 262
Magnetic aging 223
Magnetic converter 624
Magnetic cores 156
Magnetic field measurements 425
Magnetic films 60, 493
Magnetic frequency multiplier 630
Magnetic loss 167, 180, 183, 287, 303, 317, 362, 366, 450
– testers 437
Magnetic measurements 136, 226, 362, 371, 386, 429, 433, 603
Magnetic moment
– local 86
Magnetic noise 60, 520
Magnetic sheets 101, 156, 396
– stacking 621
Magnetic steel 386, 603
Magnetic viscosity 457
Magnetization
– asymmetrical 450
– curves 32, 77, 382
– models 63, 97, 101, 150, 516
– processes 53, 57, 107, 174
– properties 1
– reversible 107, 627
– stress induced 174
Magneto-optical rotation 453
Magneto-optics 419, 425
Magnetoelastic properties 325, 357
Magnetomechanical coupling 266
Magnetostatic energy 101, 568
Magnetostriction 174, 226, 490, 627
Magnetotactic bacteria 409
Measuring errors 446
Metallic glasses 46, 93, 266, 291, 338, 617
– nanocrystalline 238
Microstructure 500
Mössbauer effect 354, 463, 470
Mössbauer spectra 291, 481, 493
Multilayers 453, 490, 504

Nanocrystalline materials 16, 243, 248, 255, 280, 283, 291, 303, 306, 310, 314, 317, 329, 357
Nanocrystallization 299
Neural networks 571
Neutron depolarization 251
Non-destructive testing 599
Non-oriented silicon steels 63, 180, 201, 229
Non-oriented steels 147, 226, 440
Nonlinear devices 520
Nuclear magnetic resonance 547
Numerical methods 16, 57, 93, 377, 446, 564, 571, 591
– thrust computations 583
– time stepping 540

On-line testing 399
Ordering processes 351
Oxidation 504

Permanent magnets 578
Permeability 183, 195, 212, 243, 303, 329, 338, 413, 478
– initial 255
Permeability tensor 209
Phase transitions 40
Pinning field 20, 270
Pinning mechanisms 20, 270
Plastic strain 613
Polarized neutrons 90
Power losses 393, 399, 487
Precipitates
– AlN 159
Precrystallization in amorphous alloys 276
Preisach model 53, 93, 111
Pry and Bean model 198
Pulse width modulation 140, 201

Random anisotropy models 16
Rapid solidification 317, 366
Recording heads
– metal-in-gap 508
Recording materials 6
Recrystallization 229
– secondary 123, 216
Residual magnetism 42
Resistivity 314
– thermal variation 82
Resonance
– ferromagnetic 484, 490, 557
Respiratory monitoring 634
Rogowski–Chattock testers 587
Rotating machines 644
Rotational loss 647
– tester 553
Rotational magnetic field 209, 553

Saturation moments 295
Scaling properties 1
SEM images
– dynamic 405
Sendust films 508
Sensors 60, 520, 525, 627
– digital 610
– fluxgate 338
– magnetic force 422
– magnetostrictive 634
Short range order
– chemical 262
– topological 262

Single sheet testers 377, 399, 416, 443, 621
– rotating 150, 382
Sintered powders 463
Spectroscopic splitting *g* factor 67
Spin density 90
Spin glass 457, 484
Spin glass models 111
Spin resolved spectroscopy 474
Spin wave excitation 67, 283
Spin wave stiffness constant 67, 283
Spinels 457
Sputtering 493, 504
Stainless steels 470
Stator cores 644
Stoner–Wohlfarth model 97
Stray fields 422
Stress 354
– bending 550
– compressive 443
– internal distribution 251
– tensile 28, 443
Stress-magnetization curves 627
Structural relaxation 262, 276
– reversible 334
Structure factors 90
Superferromagnetism 238
Superparamagnetism 238
Surface crystallization 273, 354
Surface energy density 104
Surface fields 402
Surface insulation resistance 156, 396
Surface segregation
– antimony 229
Susceptibility 295, 347

Texture 123, 147, 190, 201, 216
– cubic 159, 195
Texture formation 170
Thermal fatigue 599
Thermomagnetic treatments 497
Thin films 413, 470, 474, 484, 504, 511
Total ownership cost 617
Transducers 525
– toroidal 550
Transformer cores 377, 561, 607, 637
– joints 544
– step-lap 607
Transformer noise 607
Transition metals 90
Trapezoidal induction 140
Trapezoidal magnetic field 180
Two-dimensional excitation 144
Two-dimensional magnetic properties 209, 212

Waveform control 382
Weak ferromagnets 425

X-ray diffraction 291
X-ray photoelectron spectroscopy 493

YIG 419